PROCEEDING TOWARD SAFETY

EXECUTIVE DEVELOPMENT

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ABSTRACT

Many fire departments throughout the country have not yet adopted N.F.P.A. 1500 as their guideline to providing a safe working environment for their employees. The complexity of the standard and its associated potential impacts on an organization's operations and budget have made it intimidating at best. The Marion Fire Department has attempted to design health and safety measures into its operations throughout the years but lacks formality in its delivery of that function. Without a formal health and safety program, the Marion Fire Department has no way to make certain that it is providing the safest atmosphere possible for its employees.

The purpose of this action research paper was to provide a guideline for the Marion Fire Department to follow should it choose to adopt N.F.P.A. 1500 as policy. Historic and descriptive research methods were used to both establish a need and create a better understanding of the manner in which safety officials deal with health and safety plan adoption as well as to gain insight on how well Marion adheres to the standard. Evaluative research activities were undertaken to establish the relationships between the Marion Fire Department's current safety measures and that of a formal program.

The research activities were designed to answer the following questions and provide the information necessary to produce an adoption guideline:

1. What are the minimum requirements of an occupational health and safety program as identified by NFPA 1500?

2. Does the Marion Fire Department currently meet any of the minimum requirements of an occupational health and safety program as defined in question #1?
3. Is there a logical sequence of activities that are necessary to prepare and support the organization for the implementation of specific program components?
4. Who should be involved in the development and delivery of an occupational health and safety program for the Marion Fire Department?
5. What training will be necessary to implement and support a safety program?

Once the answers to these questions were compiled and analyzed, taking into account the organizational culture and resources of the Marion Fire Department; a Health and Safety Program phase-in guideline was produced.

The research and resulting guideline offer the Marion Fire Department's administration an opportunity to support and expand its safety commitment toward its employees. Based on this project, it is recommended that the Marion Fire Department proceed with a plan to adopt and adhere to N.F.P.A. 1500.

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INTRODUCTION

The Marion Fire Department does not currently operate under the guidelines of a formal safety program. Traditionally, employee safety measures have been built into the Department's operating procedures and personnel policies and have consequently never been compiled or formally reviewed. The administration is concerned that some of the key safety issues presented through both government regulation and nationally recognized standards pertaining to the fire service, may have been overseen or ineffectively implemented.

The purpose of this research paper was to produce a plan for the implementation of a formal occupational health and safety program for the Marion Fire Department. Historic, descriptive, and evaluative methods were used to support this action research project and answer the following questions:

1. What are the minimum requirements of an occupational health and safety program as identified by NFPA 1500?
2. Does the Marion Fire Department currently meet any of the minimum requirements of an occupational health and safety program as defined in question #1?
3. Is there a logical sequence of activities that are necessary to prepare and support the organization for the implementation of specific program components?
4. Who should be involved in the development and delivery of an occupational health and safety program for the Marion Fire Department?
5. What training will be necessary to implement and support a safety program?

BACKGROUND SIGNIFICANCE

"With attention focused primarily on safety, no conscientious department can disregard the merits of implementing a fire fighter health and safety program like N.F.P.A. 1500." (Meyer, 1992, p. 44) "In an age where safety is increasingly a major concern, no department can afford to be without one."(Loflin, 1992, p. 40) With statements like these frequenting the professional journals there is no argument that the fire service has recognized the importance of employee health and safety programs. Despite the fact that the fire service is thinking and talking safety more these days, this mindset has done little to actually reduce the number of fire fighter injuries and deaths. The U.S. Fire Administration reports that the number of fire fighter injuries per 1000 have not significantly dropped over the last ten years and that all levels of the fire service must take strides in order to positively impact these statistics in the coming years. (American Federation of Government Employees [A.F.G.E.], 1998).

The Marion Fire Department has been fortunate in posting relatively few fire fighter injuries and no fire fighter deaths during its existence. The administration has consciously built safety into the department's guidelines and S.O.P.s throughout the years but recognizes that more can be done to ensure employee safety. A formalized safety program will greatly reduce the chances that The Marion Fire Department's outstanding safety record will be stained by a mishap.

This research paper relates to the problem solving, organizational change and development and service quality sections of the Executive Development Course, Executive Fire Officer Program, at the National Fire Academy. Through the utilization of

systematic problem solving, this effort will result in an action plan that will invoke organizational change and create a safer, high quality working environment for the department's employees.

LITERATURE REVIEW

The requirement for employer/employee endorsement and commitment is supported by several sources as a starting point and primary activity in the development of a health and safety program. Denis Zeimet, David Ballard and Kenneth Mai (1997) identified 12 basic elements that are necessary steps in the establishment of a health and safety program. Thier first element, employer/employee endorsement creates a base of commitment and understanding for all levels of the organization. They state: " Of primary importance is the commitment of human and material resources necessary to implement and mange the safety and health related policies." (Zeimet, Ballard, and Mai, 1997, p. 127) "Implementing and administering a health and safety program requires a commitment at all levels of the fire department. (Washington State, 1992, p.i-1) In an effort to create a framework for safety managers to follow in the development of a health and safety program, Mary DeCampli (1986) identifies top management support as the first and most critical step. "The recommended actions for management commitment and employee involvement start with clearly stating a work site policy on safe and healthful work and working conditions". (Hearn, 1995, p. 31) One way to support the member's commitment to the project and to promote the concept of teamwork between the employer and employee is through committee appointments.

(Sachs, 1988) "Employee involvement in the health and safety program is another cornerstone for success." (Hearn, 1995, p. 31) It is important to recognize the existence of unique cultural components in each organization and the associated use of those components to support a health and safety program. Five key influences including management style, individuals, the safety program, production equipment, and delivery of services can be found within any organizational culture and must be used in an appropriate manner to create an effective program. These influences must be identified and unmask during the initial stages of program development to be successful. (Eckhardt, 1996)

The next hurdle that must be overcome is the establishment of a designated safety officer and safety committee to oversee the development and implementation of the health and safety program. The appointed team should encompass members that represent all ranks of the department. (Peterson, 1990) "If the plan is to be effective, everyone should feel that he or she has had an opportunity to be involved in the development process." (Peterson, 1990, p. 12) "Safety committee members should include representatives from the local governing body, municipal health department and someone from the medical profession, along with fire personnel." (Meyer, 1992, p. 45) "Having a diversified committee membership creates an interface with other department entities." (Sachs, 1988, p. 22) Once the committee is formed it is necessary for the membership to develop and adopt both a mission statement and a set of objectives to guide the committee. (Zeimet, et al., 1997)

So the committee can operate at maximum efficiency it must:

- have a defined mission
- have specific problem-solving responsibilities
- have the resources necessary to meet assigned responsibilities

- be accountable for meeting assigned responsibilities
- conduct meetings with a chairperson and accepted rules of order
- hold regular meetings
- post meetings and agendas in advance
- take meeting minutes and communicate activities and actions
- provide an action plan for the small employer.

(Zeimet, et al. 1997, p.128)

Commonly known as the compliance section of the program, a statement of accountability must be built into the safety policy. (Hearn, 1995) "Management must be willing, and employees must be understand, that a system to discipline those violating company health and safety policy does exist, and may be used to the maximum extent." (Hearn, 1995, p. 32)

Although the Chief is ultimately responsible for the implementation and maintenance of the health and safety program, most managers will choose to delegate this duty to a safety officer. The safety officer must not only adhere to departmental criteria but must also maintain current knowledge in several different areas. (Loflin, 1992) National, state, and local codes, potential safety hazards on and off of the fireground, principles and practices of a safety program, general health and physical fitness practices and surveillance, and the management of statistics and records are all areas that may require initial and/or ongoing training for this individual. (McGill, 1996) Understanding and communication lines must be opened between the safety officer and the federal regulating agencies that directly effect the fire service. EPA, NIOSH, and OSHA consulting services can be invaluable resources for the safety officer in their development of an effective health and safety program. (Soros, 1996) Newsletters and meetings incorporate personal experiences and benchmarks that can be used as guidance tools should the Safety Officer become an active member of peer

associations. Regular updates concerning the safety field can be obtained through a membership in safety-based organizations like The Fire Department Safety Officer's Association, an International Society of Fire Service Instructors offshoot organization. (Fire Chief, 1990) Little training is required of the appointments to the safety committee outside of the designated safety officer. Each of those individuals brings their personal point of view to the program and the program benefits from the diversity in backgrounds and experience. (Sachs, 1988) "Throughout our careers, we are constantly reminded about safety, but the concepts and emotions that we develop about safety are based on experience, not training." (Fleming, 1996, p. 70)

Once the department has made a written commitment to proceed in the development of a health and safety program. And it has identified and trained the key players that will be involved in program development and established their mission, several tasks must be completed prior to the presentation of an actual draft. In his 1990 article, Chief William Peterson identified 17 steps that will help lead to the establishment of a Health and Safety Program for fire departments. Chief Peterson's first four steps concern a thorough review of both N.F.P.A. 1500, and existing departmental procedures to evaluate the department's level of compliance and deficiencies. N.F.P.A. 1500 is identified as the major health and safety program guideline since it is the primary consensus standard for the fire service. J. Owen Weber (1992) supports this activity as a starting point with the following statement: " In developing a safety program, the safety manager first needs to determine existing problems and ascertain their extent and magnitude by initiating a fact-finding investigation known as a status study." (Weber, 1992, p. 33) Weber (1992) goes on to define a status study in detail explaining that the

entire organization must be evaluated and the results compared to some type of a standard or benchmark. N.F.P.A. 1500 consists of nine chapters and approximately one hundred and forty items that influence fire fighter safety so some organized methodology must be employed to make a reasonable comparison between the standard and the department's compliance level. N.F.P.A. has provided a check sheet as has the Volunteer Fireman's Insurance Services to assist local jurisdictions in their personal assessments. (Meyer, 1992) N.F.P.A. 1500 is broken down into ten chapters that organize the minimum requirements for a health and safety program for a fire department. The appendices of the standard include a compliance worksheet that can be used a guide for comparison purposes. (NFPA 1500, 1992)

Chapter #1 of N.F.P.A. 1500 (1992) lays out the administrative guidelines concerning the adoption and implementation of the standard. The critical sections include 1-3 and 1-4 that identify the requirements for a jurisdiction to adopt the standard, to set a date of compliance, to create a risk management plan (as specified in 2-2) and to provide written descriptors of program equivalencies concerning qualification and/or training.

Chapter #2 of N.F.P.A. 1500 (1992) is an extensive section concerning the actual organization of the department and the safety program that it will adhere to. Sections 2-1.1 through 2-1.3 require the department to produce a written statement or policy that establishes the existence, responsibilities and size of the department and the S.O.P.s under which the organization shall function.

Section 2-2 lays out the requirements of a written risk management plan that covers all aspects of departmental activities and equipment and specifies that the

following components be included: Risk Identification, Risk Evaluation, Risk Control Techniques, and Risk Management Monitoring. Section 3 of Chapter #2 specifies that the Department must produce, administer and periodically evaluate a safety and health program. Section 2-4 lays out roles and responsibilities of the Department and the fire fighters pertaining to the health and safety program and associated laws and identifies the requirement for an accident investigation committee. Section 2-5 calls for the appointment of a safety officer who will be charged with the management of the occupational health program using the guidelines provided in N.F.P.A. 1521 *Standard for Fire Department Safety Officers*. Section 6 of chapter two requires the establishment of a safety committee consisting of representatives from management and each of the department's member organizations. The committee will be responsible for reviewing all matters pertaining to safety in the organization during regularly scheduled and emergency meetings. Section 7 establishes the criteria for data collection and record keeping pertaining to the department's training, equipment maintenance, health records and occupational exposures.

Chapter 3 of N.F.P.A. 1500 (1992) deals with the aspects of training and education. This section basically states that qualified instructors shall train personnel as necessary to meet the requirements of their position. Fire instructors will be required to hold a minimum of Fire Instructor I certification, fire officers a minimum of Fire Officer I Certification, fire fighters a minimum of Fire Fighter I certification, and drivers a minimum of Driver Operators Certification. Section 1-4 concerning equivalency allows the department to fulfill the requirement of each of these levels of proficiency without the actual certification of the individual. The training and education section of this N.F.P.A.

chapter also sets minimum standards for the delivery of education concerning specific aspects of a fire fighter's job. Examples are structural fire fighting, nonstructural fire fighting, wildland fire fighting, and non-fire or special operations. The standards require frequency of training, annual hour minimums and the use of the Department's S.O.P.s in the training activities. Fire department members that are involved in hazardous materials response must be trained to the operations level per the requirements N.F.P.A. 472 *Standard for Professional Competence of Responders to Hazardous Materials Incidents.*

Chapter 4 concerns vehicle and equipment and specifies that all equipment shall meet or exceed recognized minimum standards and shall be purchased and equipped with safety in mind. Minimum requirements for equipment operators is established and a written S.O.P. is required concerning the operation of fire department vehicles with specific requirements including complete stops in certain situations and the use of the automatic brake limiting valve. This section requires all personnel riding in a fire department vehicle to be seated and secured into the vehicle and identifies specific Handling techniques for events surrounding the practice of hose loading. Section 4-4 lays out the requirements for inspection, maintenance and repair of equipment, and establishes a record keeping system for the same. Tools and equipment are also considered in this section as it identifies the N.F.P.A. standard that must be adhered to for each specific piece of equipment. (N.F.P.A. 1500, 1992)

Chapter 5 of N.F.P.A. 1500 (1992) concerns protective clothing and equipment and establishes minimum standards for providing, training in the use of, and maintenance of required gear and accessories. Minimum standards for the purchase of

protective clothing are identified and include fitting criteria. Respiratory equipment requirements concerning design, training, use and maintenance are described as are the requirements of the "protective envelope" for structural fire fighting, hazardous material response, emergence medical operations and supportive function operations. Life safety rope and hardware, eye, face and hearing protection are also addressed in this chapter

Chapter 6 of N.F.P.A. 1500 (1992) addresses emergency operations establishing the requirements of incident management, risk management during emergency operations and fire fighter accountability. Section 6-4 identifies the guidelines that must be met pertaining to the personnel that are operating at an emergency scene, the actions that they take, and the number of personnel necessary to provide a "safe" working environment. Rapid intervention for the rescue of members, rehabilitation during emergencies, guidelines concerning the handling of civil disturbances and incident critiques are also required under this chapter.

Chapter 7 concerns the Fire Department facilities with particular concerns for conformance to current codes overseeing life safety. Vehicle exhaust systems are required, as are smoke-free living facilities. (N.F.P.A. 1500, 1992)

Chapter 8 gets into the physical and physiological requirements of the employees. It establishes entrance, periodic and exiting medical evaluation requirements as well as physical performance criteria. Not only is physical performance required for a fire fighting candidate but ongoing physical fitness is required through the establishment and implementation of a Department fitness program. This section also

addresses health data base files, infection control programs, the identification of a fire department physician and post-injury or illness rehabilitation. (N.F.P.A. 1500, 1992)

Chapter 9 requires a member assistance program to be in place to provide support for the members concerning physical and physiological problems. The program requires written rules and guidelines to mandate the handling of situations that may arise through personal experiences off the clock as well as mass casualty or critical incident exposures while on the job. (N.F.P.A. 1500, 1992)

Chapter 10 of N.F.P.A. 1500 (1992) establishes a reference list for the nine chapters that preceded it and provides the safety official with a reference listing.

The City of Marion and Fire Department currently meet several of the criteria listed in N.F.P.A. 1500. The City of Marion Municipal Code establishes the Department's existence in the following manner: "A Fire Department is hereby established to prevent and extinguish fires and to protect lives and property against fires, to promote fire prevention and fire safety and to answer all emergency calls for which there is no other established agency." (City of Marion Municipal Code, 1985, Chapter 6) A Departmental table of organization is also addressed in the Municipal Code (1985) under section 6.04 where a specific number of Fire Department positions are assigned in each rank category. The Marion Fire Department employee handbook includes several specific S.O.P.s that directly address the majority of the requirements specified in N.F.P.A. 1500 Section 2-1.2 (a) through (d) concerning the existence and operations of the department. (Marion F.D. Handbook) The City of Marion currently supports an active accident review committee that is empowered and directed through the City Safety Rules (1994). The accident review committee looks into all accidents

whether or not there are injuries involved and despite the dollar value of loss. The committee is composed of members from each of the City departments and acts as an advisory board only making recommendations concerning improved safety related to the investigated events. The Marion Fire Department currently requires both career and volunteer fire fighters to complete training and certify as a Fire Fighter I. None of the other required certifications or equivalents are specified by the Marion Fire Department at this time. (M.F.D. Personnel Manual) The Marion Fire Department addresses several of the items listed under N.F.P.A. 1500 Chapter #4 concerning equipment purchases, practices and maintenance in the departmental guidelines and safety rules. A respiratory policy is in effect and is regularly updated to meet or exceed the requirement of I.O.S.H.A. 1901.134. S.O.P.s are also in place that cover confined space rescue, rope rescue and hearing conservation. The Marion Fire Department safety rules also specifically address the requirements for the mandatory use of gear in emergency situations. (M.F.D. Personnel Manual) An Incident Command policy is in place at the Marion Fire Department that addresses incident management, responder roles, decision making and accountability. (M.F.D. Personnel Manual) The Marion Fire Department has vehicle exhaust systems in both stations and mandates their use with a department S.O.P. (M.F.D. Personnel Manual) The City of Marion Civil Service commission mandates that each post-job-offer recruit is put through a complete N.F.P.A. physical prior to actual employment. The Marion fire department addresses these issues through active support of a C.I.S.D. program and employee wellness/assistance system and enforces several rules and regulations that mandate their use and maintenance. (M.F.D. Personnel Manual)

"Once a detailed analysis is completed, the committee should complete the last three steps in what J. Owen Weber (1992) calls the "status study". These three steps include data assimilation, prioritization of problem areas for immediate attention, and the development of alternative solutions for predominating problem areas. Zeimet, Ballard, and Mai refer to this step as "Element #5: Identification, evaluation and elimination of work place hazards." (Zeimet, et al., 1992, p. 128-9) Once a department's level of compliance is established it is time to identify alternative or solutions to those areas where compliance is lax. These alternatives can then be evaluated with relationship to time and cost and rated best to worst with the top choice in each field placed into the program's agenda. (Peterson, 1990)

Mary DeCampli offers one final consideration:

> If your organization is just starting a safety program, don't implement "too much too fast." The quality of loss control items in the program does not measure the quality of the safety function. For example, start by obtaining a written statement from the executive officer as the recognized policy statement. Distribute this policy to all departments, along with a safety manual containing the basic safety procedure (e.g., how to report accidents, conduct safety inspections, hold safety meetings, and explain general rules and regulations). Then slowly add new programs, such as safety incentive awards or job safety analysis. (DeCampli, 1986, p. 17)

PROCEDURES

Research Methods

The research procedure used in the preparation of the research paper began with a literature review based on resources obtained at the Learning Resource Center at the National Fire Academy. Additional sessions of literature review were conducted using resources and documents at the local level.

Historic and descriptive research methods were utilized to support a higher level of understanding on how fire departments and industrial safety managers are dealing with the implementation of health and safety programs. Literature review at the local level was necessary to help determine the current standing of the Marion Fire Department in its pursuit of a safe working environment. Evaluative concepts were used to determine the levels of necessity and feasibility associated with the Marion Fire Department's formal pursuit of a safety program that might include the adoption and full implementation of N.F.P.A. 1500. The evaluative step was completed through a comparison of where N.F.P.A. 1500 (1992) indicates a department should be in the field of safety and the actual standing of the Marion Fire Department. A modified form (See Sample - Appendix A) based on the Fire Department Occupational Health and Safety Program Worksheet located in the appendix of N.F.P.A. 1500 (1992) was used to establish the current level of compliance necessary to make management decisions concerning program implementation and to guide literature review activities.

Once a basic understanding of the topic, associated components, and the potential impact on the local department is gained through literature review, the actions necessary to improve or solve the current conditions can be taken.

Limitations

Due to the complexity of both N.F.P.A. 1500 (1992) and the associated components of any health and safety program, this field of research is difficult, if not impossible to complete without heavy reliance on personal observation and experience within one's workplace. An effective action plan must reflect the true capabilities, needs, and culture of the individual department. This limitation leads to a significant reduction in the value of benchmarking techniques and/or surveys. For this reason none were conducted in this project. These descriptive research tools will be best utilized after the Department has taken the first critical steps in adopted a health and safety program and is looking for guidance in the efficient implementation of specific program components.

RESULTS

This research project resulted in the creation of a phase-in plan for the implementation of a formal health and safety program at the Marion Fire Department. The phase-in plan (Please see Appendix B) represents a compilation of the various author's recommendations for the implementation of health and safety plans cited in the literature review. Program action plan recommendations were then coupled with a personal knowledge of internal capabilities to assure that the plan would meet the needs of N.F.P.A 1500 (1992) while assuring a smooth transition. Consideration of the internal culture of the Marion Fire Department and the potential impacts that

implementation activities might create were taken into account and are reflected in the plan as well.

ANSWERS TO RESEARCH QUESTIONS

Question 1. *What are the minimum requirements of an occupational health and safety program as identified by NFPA 1500?* N.F.P.A. 1500's (1992) nine chapters and 140 distinct items represent a vast and in-depth guideline for compliance. The literature review reflects the major categories covered by the standard and a sample local compliance worksheet (Appendix A) was developed to allow a quick review of program current compliance levels.

Question 2. *Does the Marion Fire Department currently meet any of the minimum requirements of an occupational health and safety program as defined in question #1?* This question is of major concern to any department seeking to bring their agency up to a full compliance level. The magnitude of the impact that adoption of N.F.P.A. 1500 (1992) has on the department will most likely be tied to current operational compatibility so once the department sees that they are not starting from square one the transition may come easier. The Marion fire department has several areas where at least partial compliance has been achieved. In many cases there is a lack of written policies and/or guidelines to refer to since many of the components of a health and safety plan have been built into the job over many years. The sample compliance worksheet was used to identify those areas where the department adheres to the standard and may eventually serve the Health and Safety Committee as a guideline to full compliance.

Question 3. *Is there a logical sequence of activities that are necessary to prepare and support the organization for the implementation of specific program components?*

The final phase-in plan (Appendix B) reflects a number of the activities that were recommended by various authors throughout the literature review process. Initial commitment, identification of compliance team, current assessment, identification of deficiencies, prioritization of deficiencies, implementation and review were reflected as the main components necessary to assure success.

Question 4. *Who should be involved in the development and delivery of an occupational health and safety program for the Marion Fire Department?* The health and safety program cannot be created and implemented in an effective manner without the full cooperation and assistance of everyone involved in the operations of the Fire Department. The literature review activity identified this as perhaps the most critical issue that is faced in pursuing compliance and time and time again made reference to the importance of unification of all factions of the organization. Managers must reflect their commitment through involvement, oversight and support, as well as through the creation and support of a functional team empowered to complete their task. Employees must reflect their commitment through personal input, involvement in the process and conformation to the program. The initial project team should include representatives from the governing body, management, each member unit of the department, and the general public.

Question 5. *What training will be necessary to implement and support a safety program?* The literature review identified that the major thrust of the department's training should be delivered early on in the process. Training for the majority of the key players will consist of mainly an overview of the components of N.F.P.A. 1500 (1992) and the reasoning behind program adoption. One key individual will need to not only

seek as much health and safety training as they can receive early on but also must consider their training needs an ongoing commitment. The designated safety officer will act as the overall program manager and must develop a comfortable level of knowledge in reference to laws and regulations, fire ground activities, equipment innovations, physical fitness, reporting and a long list of other responsibilities that come along with this position. Once a program is implemented, only a committed, well trained, and well-informed individual can assure that the program continues to meet minimum standards in an ever-changing environment.

DISCUSSION

This research project was very successful as a guidance tool for the department as it prepares to work through what appears to be an intimidating project. Until the literature review was completed, a solid starting point for a project of this scope was somewhat clouded by the complexity of the N.F.P.A. 1500 (1992) standard. Articles written by Weber (1992), Meyer (1992), and Peterson (1990) highlight logical step-by-step progressions to the end goal. These steps were supported by articles like those written by Loflin (1992) and Sachs (1988) that describe the implementation of the safety officer position. It was interesting to find that nearly all of the authors suggested the same basic steps to reach the goal of a formal health and safety program.

The materials that were used to support this project not only identified a management tool to achieve the results that we were looking for but also reveled the fact that the Marion Fire Department was already well on its way to meeting this goal. A

great number of the specific requirements of N.F.P.A. 1500 (1992) have already been addressed through ordinance or policy and simply require the documentation to be compiled to reach full compliance. It is certainly reasonable to assume that any fire department can achieve full compliance if they commit to the project and follow a basic guideline designed with their specific organization in mind.

RECOMMENDATIONS

The Marion Fire Department should pursue full compliance with N.F.P.A. 1500 (1992) through the production and maintenance of a formal health and safety program. Following a guideline of activities based on the literature review and tied to the capabilities of the department, full commitment and steady progress will eventually support a workplace who's operational base is rooted in safety. The objective to deliver a safe workplace is not the insurmountable task that it was first envisioned and is well within the grasp of any organization once an action plan is developed and measures are taken to support that plan.

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Appendix A

M.F.D. Compliance Worksheet

(Based on the NFPA 1500 Fire Department Occupational Safety & Health Program Worksheet)

	Compliance		Written		Priority		
	Full	Partial	Yes	No	H	M	L
Chapter 1 Administration							
1-4 Equivalency							
Chapter 2 Organization							
2-1 Organizational Statement							
2-1.1 - Written Statement							
2-1.2 -Operational Guidelines							
2-1.3 - Statement Available							
2-2 Risk Management Plan							
2-2.1 - Written plan							
2-2.2 - Plan Coverage							
2-2.3 - Plan Components							
2-3 Policy							
2-3.1 - Written Policy							
2-3.2 - Program Audits							
2-4 Roles and Responsibilities							
2-4.1 - F.D. Responsibility							
2-4.1.1 - Comply with laws							
2-4.1.2 - Rules, regs & SOPs							
2-4.2 - Accident Invest. Procedure							
2-4.2.1 - Members							
2-4.2.1 - Fire Dept. Vehicles							
2-4.2.3 - Corrective Actions							
2-4.2.4 - Accident Invest.							
2-4.3 - Individual cooperation							
2-4.4 - Member Org. Participation							
2-5 Fire Dept. Safety Officer							
2-5.1 - NFPA 1521							
2-5.1 – S.O. to Manage Program							
2-5.2 – Fire Chief Assign Resources							

	Compliance		Written		Priority		
	Full	Partial	Yes	No	H	M	L
2-6 Occupational H & S Officer							
2-6.1 - Establish Committee							
2-6.2 – Committee Study & Review							
2-6.3 – Regular meetings							
2-7 Records							
2-7.1 – Accidents, injuries ect.							
2-7.2 – Exposures							
2-7.3 – Health							
2-7.4 – Training							
2-7.5 – Vehicles & Equip.							
Chapter 3 Training & Education							
3-1 General							
3-1.1 – Safety & health training							
3-1.2 – Training on 1500							
3-1.3 – Training based on duties							
3-1.4 – Train every member							
3-1.5 – Qualified instructors							
3-1.5 – Instructor I							
3-2 Training Frequency							
3-2.1 – Not less that twice/year							
3-2.2 – new tech, procedure, hazard							
3-3 Basic Training							
3-3.1 – Trained before operation							
3-3.2 – 1001 FFI							
3-3.3 – 1002 Driver/Operator							
3-3.5 – 1021 Fire Officer							
3-3.6 – Incident management							
3-3.7 – Safe exit from operations							
3-4 Training for fire fighting							
3-4.1 – Minimum training							
3-4.2 – Monthly training							
3-4.3 – Wildland Training							
3-4.4 – SOPs							
3-4.5 – Training exercises							
3-4.6 – Hazardous smoke generation							
3-5 Special Operations							
3-5.1 – Specific advance training							
3-5.2 – SOPs							
3-5.3 – NFPA 472							

Chapter 4 Vehicle and Equipment

4-1 Fire Dept. Vehicles
- 4-1.1 – Safety & Health concern
- 4-1.2 – NFPA 1901
- 4-1.3 – NFPA 1902
- 4-1.4 – NFPA 1903
- 4-1.5 – NFPA 1904
- 4-1.6 – Secure tools & equip.

4-2 Driver/operators
- 4-2.1 – Approved driving course
- 4-2.2 – Valid license
- 4-2.3 – Driver/officer responsible
- 4-2.4 – All persons secured
- 4-2.5 – Non-Emergency travel
- 4-2.6 – SOPs
- 4-2.7 – Complete stop
- 4-2.8 – Rail crossings
- 4-2.9 – SOP on retarders

4-3 Persons riding
- 4-3.1 – No Tailboards & ect.
- 4-3.2 – Head & eye protection
- 4-3.3 – Alt. Transport
- 4-3.4 – New apparatus meets NFPA

4-4 Inspection, maint. & repair
- 4-4.1 – Weekly & after runs
- 4-4.2 – Preventative plan
- 4-4.3 – Removal from service
- 4-4.4 – Repairs by qualified persons
- 4-4.5 – NFPA 1911
- 4-4.6 – NFPA 1914

4-5 Tools and equipment
- 4-5.1 – Safety & health statement
- 4-5.2 – NFPA 1931
- 4-5.3 – NFPA 1961
- 4-5.4 – NFPA 1964
- 4-5.5 – Minimum insp. Intervals
- 4-5.6 – Annual tests
- 4-5.7 – Removal from service
- 4-5.8 – NFPA 1932
- 4-5.9 – NFPA 1962
- 4-5.10 – NFPA 10

Compliance		Written		Priority		
Full	Partial	Yes	No	H	M	L

Chapter 5 Protective Clothing & Equip.

Compliance		Written		Priority		
Full	Partial	Yes	No	H	M	L

5-1 General

5-1.1 – FD provides gear
5-1.2 – Use of PPE
5-1.3 – PPE training
5-1.4 – Maint. Program
5-1.5 – NFPA 1581
5-1.6 – NFPA 1975
5-1.7 – Unsafe clothing
5-1.8 – Laundry Service

5-2 Structural Gear

5-2.1 – NFPA 1971
5-2.2 – NFPA 1972
5-2.3 – NFPA 1973
5-2.4 – NFPA 1974
5-2.5 – NFPA 1971
5-2.6 – PPE for Structural FF
5-2.7 – Unsafe Clothing

5-3 SCBA

5-3.1 – NFPA 1981
5-3.2 – Provide and use SCBA
5-3.3 – Team operations
5-3.4 – Confined space use
5-3.5 – Facepiece in place
5-3.6 – SCBA program
5-3.7 – Grade D air
5-3.8 – F.P. qualitative fit
5-3.9 – Facial hair
5-3.10 – Spectacles
5-3.11 – Facepiece/seal

5-4 Protective clothing for Proximity FF

5-5 Protective clothing for EMS

5-5.1 – NFPA 1999
5-5.2 – Glove use
5-5.3 – Body & Face
5-5.4 – NFPA 1581

5-6 Chemical Protective Gear

5-7 PASS Systems

5-7.1 – NFPA 1982
5-7.2 – Testing

	Compliance		Written		Priority		
	Full	Partial	Yes	No	H	M	L
5-8 Life Safety Ropes & Hardware							
5-8.1 – NFPA 1983							
5-8.2 – Life safety rope							
5-8.3 – Inspection							
5-7 PASS Systems							
5-7.1 – NFPA 1982							
5-7.2 – Testing							
5-8 Life Safety Ropes & Hardware							
5-8.1 – NFPA 1983							
5-8.2 – Life safety rope							
5-8.3 – Inspection							
5-8.4 – Qualified inspector							
5-8.5 – Records							
5-9 New & Existing Prot. Gear							
5-9.1 – New PPE meets standards							
5-9.2 – Existing met standards							
5-9.3 – Upgrades							
5-10 Eye and Face Protection							
5-10.1 - ANSI Z87.1							
5-10.2 – SCBA facepieces							
5-10.3 – Helmet face shields							
5-11 Hearing Protection							
5-11.1 – Use 90dBA apparatus							
5-11.2 – Use 90dBA tools							
5-11.3 – Hearing conservation program							
Chapter 6 Emergency Operations							
6-1 Incident Management							
6-1.1 – Prevent accidents							
6-1.2 – Written ICS							
6-1.3 – IC responsible							
6-1.4 – Span of control							
6-1.5 – IC Scene Control							
6-1.6 – Communications							

6-2 Risk Management

6-2.1 – In I.C.
6-2.2 – Defined
6-2.3 – Qualified personnel

6-3 Accountability

6-3.1 – Written SOP
6-3.2 – Members participate
6-3.3 – IC responsible
6-3.4 – All incidents
6-3.5 – System effective
6-3.6 – Account. Officers

6-4 Member scene operations

6-4.1 – Adequate personnel
6.4.2 – Direct supervision
6.4.3 – Teams
6.4.4 – Initial stage
6.4.5 – Highest stage
6.4.6 – Secured to aerial
6-4.7 – Reflective material

6-5 Rapid intervention

6-5.1 – Rescue
6-5.2 – RIT
6-5.3 – Composure/structure
6-5.4 – Crew status/early
6-5.5 – Crew status/extended
6-5.6 – Special operations

6-6 Rehabilitation

6-6.1 – Condition awareness
6-6.2 – IC provide rest/rehab

6-7 Civil Disturbance

6-7.1 – SOPs
6-7.2 – interagency agreements
6-7.3 – Law coordination
6-7.4 – ID & reaction
6-7.5 – Agency communication
6-7.6 – Safe staging
6-7.7 – Law called
6-7.8 – Support to SWAT

Compliance		Written		Priority		
Full	Partial	Yes	No	H	M	L

Compliance		Written		Priority		
Full	Partial	Yes	No	H	M	L

6-8 Incident Critique

6-8.1 – SOPs
6-8.2 – Involves S&P committee
6-8.3 – Basic review
6-8.4 – ID action needed
6-8.5 – Action plan

Chapter 7 Facility Safety

7-1 Safety Standards

7-1.1 – Comply with codes
7-1.2 – NFPA 1581
7-1.3 – Smoke detectors
7-1.4 – Life Safety Code
7-1.5 – Exhaust ventilation
7-1.6 – Smoke-free areas

7-2 Inspections

7-2.1 - Annual code insp.
7-2.2 – Monthly safety insp.

7-3 Maint. And Repairs

7-3.1 – Establish maint. System

Chapter 8 Medical and Physical

8-1 Medical Requirements

8-1.1 – Medical Eval. Pre-employment
8-1.2 – NFPA 1582
8-1.3 - Periodic Evaluation
8-1.4 - Payments
8-1.5 - Alcohol/drugs

8-2 Physical Performance

8-2.1 – FD requirements
8-2.2 – Candidates certified
8-2.3 – FF annual certified
8-2.4 – Physical rehab.

8-3 Physical Fitness Requirements

8-3.1 – Written program
8-3.2 – Member Participation
8-3.3 – Med. Supervision

8-4 Confidential Data Base

8-4.1 – Health file
8-4.2 – Indiv/group records
8-4.3 – Autopsy reports

8-5 Infection Control

8-5.1 – Exposure prevention
8-5.2 – NFPA 1581

8-6 Fire Dept. Physician
8-7 Post-Injury Rehab.

Chapter 9 Member Assistance

9-1 General

9-1.1 – Program avail.
9-1.2 – Written
9-1.3 – Written rules
9-1.4 – Wellness
9-1.5 – Written CISD plan
9-1.6 – Smoking cessation plan

Compliance		Written		Priority		
Full	Partial	Yes	No	H	M	L

Appendix B

PHASE-IN PLAN FOR A HEALTH AND SAFETY PROGRAM AT THE MARION FIRE DEPARTMENT

PHASE I PREPARATION

Employer/employee endorsement

- Presentation to City Council concerning NFPA 1500
  - Solicit input
  - Solicit committee members
- Presentation to employee groups concerning NFPA 1500
  - Solicit input
  - Solicit committee members
- Produce a written commitment and adoption statement
- Identify and select potential safety officer(s) and begin their preparation
  - Training to NFPA 1501
  - Memberships in safety associations
    - Updated information
    - Information network established
- Make committee appointments

PHASE II PRODUCTION

- Committee completes a detailed “status review”
  - Identifies areas of compliance
  - Identifies deficiencies
- Committee categorizes deficiencies by importance and organizational impact

- Committee develops compliance measures for each deficiency
  - With consideration for time
  - With consideration for budgetary impact
  - With consideration for federal and state laws
- Committee chooses best option
  - Produces implementation plan
  - Identifies written policy statements necessary

PHASE III IMPLEMENTATION

- Administrative duties addressed
  - Production of associated SOPs or policy statements
  - Budget for necessary assets
  - Assessment of equipment/tools completed
- Communicate each new policy/activity
  - Written SOP/policy
  - Training completed and documented
- Policy/activity implemented

PHASE IV REVIEW

- Review of program components and effectiveness by safety officer
  - After first 6 months
  - Annually thereafter
  - Updates begin immediately for new requirements